



OFFICE OF RIVER PROTECTION

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Richland, Washington 99352

MAY 09 2017

17-ECD-0031

Ms. Alexandra K. Smith, Program Manager
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Ms. Smith:

RESPONSE TO THE DANGEROUS WASTE COMPLIANCE INSPECTION ON MARCH 8, 2016, AT THE DOUBLE-SHELL TANK SYSTEM AND 204-AR WASTE UNLOADING STATION, RESOURCE CONSERVATION AND RECOVERY ACT SITE ID: WA7890008967, NUCLEAR WASTE PROGRAM COMPLIANCE INDEX NO. 16.554

Reference: Ecology letter from E. Holbrook to K.W. Smith, ORP, and M. Lindholm, WRPS, "Dangerous Waste Compliance Inspection on March 8, 2016, at the Double-Shell Tank System and 204-AR Waste Unloading Station, RCRA Site ID: WA7890008967, NWP Compliance Index No. 16.554," 17-NWP-028, dated March 16, 2017.

This letter responds to the Washington State Department of Ecology's (Ecology) inspection report (Reference) on the Double-Shell Tank System and 204-AR Waste Unloading Station performed on March 8, 2016. The U.S. Department of Energy, Office of River Protection and Washington River Protection Solutions LLC have reviewed the five "Observations" and any associated required response actions as identified by Ecology in the inspection report. The attached information addresses Ecology's required actions for Observations 2 and 5. Items identified in the inspection report as "Concerns" are not addressed in this response nor is a response being provided for Observations 1, 3, and 4 as Ecology did not request one.

Ms. Alexandra K. Smith
17-ECD-0031

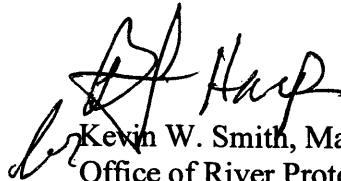
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If you have any questions, please contact Bryan R. Trimberger, Environmental Compliance Division, (509) 376-2674, or Jessica A. Joyner, Environmental Protection, Washington River Protection Solutions LLC, (509) 376-7533.



Mark A. Lindholm
President and Project Manager
Washington River Protection Solutions LLC



Kevin W. Smith, Manager
Office of River Protection

ECD:BRT

Attachment

cc w/attach:

K.A. Elsethagen, Ecology

E.J. Holbrook, Ecology

J. Mathey, Ecology

H.M. Bowers, WRPS

S.B. Cherry, WRPS

J.T. Hamilton, WRPS

J.A. Joyner, WRPS

R.B. McPherson, WRPS

D.K. Smith, WRPS

Z. Smith, WRPS

D.W. Strasser, WRPS

J.A. Voogd, WRPS

Administrative Record

Environmental Portal, LMSI

WRPS Correspondence Control

**Attachment
17-ECD-0031
(5 Pages Excluding Cover Sheet)**

Response to Findings

Response to Findings

Provided below are the U.S. Department of Energy (DOE), Office of River Protection (ORP) and Washington River Protection Solutions LLC (WRPS) responses to the cited Washington State Department of Ecology (Ecology) "Observations" and "Action Required" numbers 2 and 5 as documented within 17-NWP-028, "Dangerous Waste Compliance Inspection on March 8, 2016, at the Double-Shell Tank System and 204-AR Waste Unloading Station, RCRA Site ID: WA7890008967, NWP Compliance Index No. 16.554."

2. *"WAC 173-303-400(3), as referenced by the Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion Revision 8C – Condition I.A Effect of Permit. WAC 173-303-320(1), The owner or operator must inspect his facility to prevent malfunctions and deterioration..."*

Ecology Action Required:

"Within 60 days upon receipt of this compliance report, USDOE-ORP and WRPS must develop and follow a written schedule for inspecting safety equipment, emergency equipment, operating equipment, and structural equipment that have been categorized as Emergency Use Only - Secondary Containment (See Table 12).

The inspection schedule for emergency pump out lines and annulus pump pits must be provided to Ecology within 60 days upon receipt of this compliance report."

Table 12: Emergency Use Only – Secondary Containment

<u>Tank System</u>	<u>Emergency Pump Out Line</u>	<u>Annulus Pump Pit</u>
241-AN-101	PW-471	AN-01B
241-AN-102	PW-472	AN-02B
241-AN-103	PW-473	AN-03B
241-AN-104	PW-474	AN-04B
241-AN-105	PW-475	AN-05B
241-AN-106	PW-476	AN-06B
241-AN-107	PW-477	AN-07B
241-AP-101	PW-811	AP-01B
241-AP-102	PW-812	AP-02B
241-AP-103	PW-813	AP-03B
241-AP-104	PW-814	AP-04B
241-AP-105	PW-815	AP-05B
241-AP-106	PW-816	AP-06B
241-AP-107	PW-817	AP-07B
241-AP-108	PW-818	AP-08B
241-AW-101	PW-471	AW-01B
241-AW-102	PW-472	AW-02B
241-AW-103	PW-473	AW-03B

241-AW-104	PW-474	AW-04B
241-AW-105	PW-475	AW-05B
241-AW-106	PW-476	AW-06B
241-SY-101	PW-477	SY-01B
241-SY-102	PW-478	SY-02B
241-SY-103	PW-479	SY-03B
241-AY-101	PW-4531	AY-01F
241-AY-102	PW-4532	AY-02F
241-AZ-101	PW-4623	AZ-01F
241-AZ-102	PW-4609	AZ-02F

ORP and WRPS Response:

Ecology has requested that ORP and WRPS provide Ecology a written schedule for inspecting equipment identified in Table 12, "Emergency Use Only – Secondary Containment" within 60 days. Ecology has cited requirements from WAC 173-303-320(1) & (2) as the basis for requesting a written schedule.

ORP and WRPS believe that in order to be subject to the inspection schedule requirements of WAC 173-303-320(2), a regulated entity must first be subject to the inspection criteria of WAC 173-303-320(1), which states:

The owner or operator must inspect his facility to prevent malfunctions and deterioration, operator errors, and discharges which may cause or lead to the release of dangerous waste constituents to the environment, or a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

The equipment identified in Table 12 is not subject to the inspection criteria of WAC 173-303-320(1). The equipment does not have potential to lead to a release of dangerous waste constituents and does not pose a threat to human health or the environment as it is:

1. Located above the tank dome, well above the hydrostatic waste level inside the tanks
2. Has no connection to, or contact with, dangerous waste constituents
3. Cannot come into contact with dangerous waste unless additional equipment is installed.

These facts demonstrate that it is physically impossible for the Table 12 equipment to release dangerous waste constituents without inclusion of additional components or modifications to the tank system itself.

Tri-Party Agreement (TPA) milestone M-048-07 established a framework for identifying a compliant Double-Shell Tank system. Agreements between ORP and Ecology regarding the annulus pump pits and annulus pump pit transfer lines (a.k.a. Table 12 equipment) include the following:

1. Are not Resource Conservation and Recovery Act compliant
2. Would only be connected to the tanks for use in an emergency situation
3. Could only be used after testing (see "Assumption 2"¹).

Additionally, ORP and Ecology have agreed that emergency pump-out lines, as part of the secondary containment system, would not require upgrades to become Resource Conservation and Recovery Act compliant.

Under TPA milestone M-048-07, "Emergency Use Only" Table 12-equipment must be:

1. Inspected and tested prior to use
2. Inspected daily when in use
3. Emptied after each use using standard practices employed at Tank Farms to remove dangerous waste (e.g., draining, flushing).

ORP and WRPS disagree with Ecology's assertion that a written inspection schedule is required by WAC 173-303-320(1) & (2) for the equipment identified in Table 12. ORP and WRPS will continue to manage the equipment identified in Table 12 in accordance with agreements established under TPA milestone M-048-07.

5. "WAC 173-303-400(3), as referenced by the Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion Revision 8C – Condition I.A Effect of Permit.

40 CFR Subpart J §265.191 Assessment of existing tank system's integrity..."

Ecology Action Required:

"Within 60 days upon receipt of this compliance report, USDOE-ORP and WRPS must develop and submit to Ecology, a schedule for completing an integrity assessment of emergency pump out lines, slurry transfer lines, supernatant transfer lines, annulus pump pits, drain pits, and central pump pits that are categorized as Emergency Use Only - Secondary Containment or Non-Compliant Deferred Use Components, in accordance with 40 CFR 265 Subpart J as incorporated and modified by WAC 173-303- 400(3). The integrity assessment must at a minimum, include an assessment of concrete pits and walls, periodic inspection of coatings, an assessment of existing cathodic protection systems conditions, and periodic leak testing of transfer line encasements. The integrity assessment schedule must assure completion of the assessment of ancillary equipment that were categorized as Emergency Use Only - Secondary Containment or Non-Compliant Deferred Use Components within two years upon receipt of this compliance report."

¹ Letter: Jeff Lyon (Ecology) to James E. Rasmussen (ORP) "Re: Letter 02-OMD-046 to M. Wilson From J. Rasmussen, dated January 14, 2003, Response to the Washington State Department of Ecology (Ecology) Letter Regarding the Exercising of Enforcement Discretion against Secondary Containment for Transfer Lines SN-277 through SN-280 and LIQW-702."

ORP and WRPS Response:

Ecology has requested that a schedule for completing an integrity assessment of emergency pump out lines, slurry transfer lines, supernatant transfer lines, annulus pump pits, drain pits, and central pump pits be provided within 60 days of receipt of Ecology letter 17-NWP-028. Further, Ecology has requested that the assessment be completed within two years. Ecology has cited 40 CFR 265 Subpart J, as incorporated and modified by WAC 173-303-400(3), as the basis for the content of the integrity assessments.

ORP and WRPS believe that the content of the integrity assessments performed for the Double-Shell Tank (DST) system were completed under TPA milestone M-048-14.² The milestone states:

Submit a written Integrity Assessment Report for the Double-Shell Tank System, to Ecology documenting the following: An assessment of the integrity of the Double-Shell Tank System. The Double-Shell Tank System is comprised of the twenty-eight (28) DST's and their ancillary equipment.

Ancillary equipment within the Double-Shell Tank System includes all subordinate tank systems and their vaults, transfer pipelines, pump pits, valve pits, lift stations, catch tanks, the 204-AR unloading Stations, and any other active components identified in interim milestone M-48-01. This integrity assessment shall be completed, documented in a report to Ecology, and certified by an Independent, Qualified, Registered, Professional Engineer (IQRPE), on or before March 31, 2006. This Integrity Assessment Report shall include information and data sufficient to determine that the Double-Shell Tank System is fit-for-use, and will not collapse, rupture, or fail, under normal operating conditions. This report shall be accompanied by a schedule and recommendations for future integrity assessments sufficient to ensure the system will not collapse, rupture, or fail, under normal operating conditions. ... [Emphasis added.]

Milestone M-048-14 limited DST integrity assessments to components identified as "active" (under the report prepared for milestone M-048-01), and the reports submitted to fulfill milestones M-048-01 and M-048-07³ did not identify which components were "active" and which were "inactive".⁴ Instead, the M-048-14 integrity assessment relied on the Deferred Use or Emergency Use Only (a.k.a. Emergency Use in this context) agreements between Ecology and

² Refer to Hanford Federal Facility Agreement and Consent Order Change No. M-48-01-01, "Add Tri Party Agreement Milestone Series M-48", approved January 2, 2002, for complete description of the M-048 milestones.

³ Letter 00-OSD-175, "Transmittal of Administrative Orders No. 00NWPKW-1250 and No. 00NWPKW-1251 Action 5 Report", dated December 18, 2000. Refer to M-048-07, "Submit to Ecology a Disposition Plan for all DST Components not in use Post 2005."

⁴ Letter 00-OSD-108, "Transmittal of Reports Requested Under Administrative Orders No. 00NWPKW-1250 and No. 00NWPKW-1251", Dated June 13, 2000, dated September 18, 2000. The TPA Milestone 48-01 referred to in the Milestone M-48-14 description originated as Action 1.A., "Submit a written report that identifies all components comprising the Double-Shell Tank (DST) System," in the Administrative Orders.

DOE ORP. Ecology agreed that these components would not require assessments until they were required for use. Additions were made to the Deferred-Use and Emergency Use Only component lists in later years with Ecology approval.⁵

The 2006 DST Integrity Assessment, issued as RPP-28538 Revision 5, identified the Deferred-Use and Emergency Use components as "NAU" – "Not Authorized for Use" in Table A-1, which recognized agreed-to prerequisites that would need to be completed prior to use; as a result, no assessments were performed on this equipment.

The RPP-28538, Rev. 5 integrity assessment report recommended that the next DST system Integrity Assessment be performed in 2016. The 2016 assessment was reported in RPP-58441, Rev. 1, issued in November 2016. Following the precedent established by the 2006 integrity assessment, components on the 2002 Deferred Use/Emergency Use lists were excluded from the 2016 DST system integrity assessment's scope.

ORP and WRPS disagree with Ecology's assertion that integrity assessments be completed for the DST Deferred Use and Emergency Use Only components within the next two years. Requiring these assessments would be inconsistent with the cited DOE and Ecology agreements and past practices.

⁵ Refer to Letter 06-TED-018, "Hanford Federal Facility Agreement and Consent Order (HFFACO) Milestone M-48-14, Submit Written Integrity Report for the Double-Shell Tank (DST) System," dated March 31, 2006, for the list of Deferred Use and Emergency Use DOE ORP and Ecology correspondence references.